

IN THE DRAWINGS

The attached sheet of drawing includes changes to Fig. 3. This sheet, which includes Fig. 3, replaces the original sheet including Fig. 3.

Attachment: Replacement Sheet (1)

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-12 are pending in the application, Claims 9-12 having been withdrawn. Claims 1, 3-5 and 7-8 are amended by the present amendment. Support for the amended claims can be found in the original specification, claims and drawings.¹ No new matter is presented.

In the outstanding Official Action the drawings were objected to because of a minor informality; and Claims 1-8 were rejected under 35 U.S.C. § 102(b) as anticipated by Rauschnabel et al. (WO 99/63129, hereinafter Rauschnabel), citations provided from English language equivalent U.S. Patent 6,613,393.

Regarding the objection to the drawings, Fig. 3 is amended to include the legend "Prior Art" as recommended in the Official Action. Accordingly, Applicant respectfully requests that the objection to the drawings be withdrawn.

Claims 1-8 were rejected under 35 U.S.C. § 102(b) as anticipated by Rauschnabel. In response to this rejection, Applicant respectfully submits that amended independent Claims 1 and 5 recite novel features clearly not taught or rendered obvious by the applied reference.

Amended independent Claim 1 recites, in part, a sputtering apparatus, comprising:

a vacuum chamber;
a cylindrical substrate holder supported rotatably in the
vacuum chamber;
and a substrate *mounted on an outer cylindrical
surface of the substrate holder...*

As shown in an exemplary embodiment at Fig. 1, a plurality of substrates (10) are mounted on the outer cylindrical surface of the substrate holder (9) inside of the sputtering

¹ E.g., specification, Figs. 1 and 2.

apparatus (100). Thus, in the claimed configuration, the first sputtering source (36) and the second sputtering source (36) face the outer cylindrical wall of the substrate holder (9).

Turning to the applied reference, Rauschnabel describes a method for applying a wear protection layer system having optical properties on two surfaces. As shown in Figs. 4 and 5 the substrate (41) is located on the flat top surface the turntable (50) while being rotated amongst various compartments (47, 48, 49 and 50) in a coating process.

Rauschnabel, however, fails to teach or suggest that the substrate (41) is mounted “*on an outer cylindrical surface of the substrate holder*,” as recited in amended independent Claim 1.

Instead, as noted above, in Rauschnabel’s device, the substrate (41) is located on a top surface of the turntable (50) and is not located on an outer cylindrical surface of the turntable (50). Further, Rauschnabel describes that each of the cathodes (52) and targets (53) in the sputtering systems (61, 62) are oriented so as to distribute gas downwards onto the top surface of the turntable (60) and the substrate (41).

Rauschnabel, therefore, clearly fails to suggest that his sputtering apparatus includes a cylindrical substrate holder supported rotatably in the vacuum chamber and a substrate “*mounted on an outer cylindrical surface of the substrate holder*,” as recited in amended independent Claim 1.

Accordingly, Applicant respectfully requests that the rejection of Claim 1 (and Claims 2-4 which depend therefrom) under 35 U.S.C. § 102(b) be withdrawn.

Amended independent Claim 5 relates to a sputtering apparatus including a vacuum chamber, a circular disk-like substrate holder supported rotatably in the vacuum chamber and a substrate mounted on the circular disk of the substrate holder. Independent Claim 5 also recites the vacuum chamber includes, in part:

...a first film deposition area and a second film deposition area
for deposition of a film on the substrate...

the first film deposition area includes ... *an exhaust port located in a sidewall of the vacuum chamber* ...
the second film deposition area includes ... *an exhaust port located in a sidewall of the vacuum chamber* ...

As depicted in an exemplary embodiment at Fig. 2 each of the first film deposition area (A) and the second film deposition area (B) in the vacuum chamber (1) include exhaust ports (81, 82) so that the reactive gas can be effectively evacuated so as not to be diffused.

In contrast, as depicted in Figs. 4 and 5, Rauschnabel's film deposition areas include only supply conduits (44, 51) for supplying the sputtering gas and reactive gas to each of the compartments (47, 48). Rauschnabel's device also includes a supply conduit (43) in the plasma compartments (47, 50) for supplying a silicon monomer. Thus, Rauschnabel fails to teach or suggest that his device include an exhaust port located in either the first or second film deposition areas.

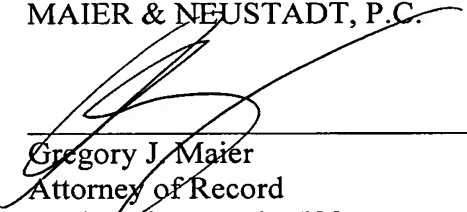
Specifically, Rauschnabel fails to teach or suggest sputtering apparatus including a vacuum chamber that includes a first film deposition area having "*an exhaust port located in a sidewall of the vacuum chamber*," and a second film deposition area having "*an exhaust port located in a sidewall of the vacuum chamber*," as recited in amended independent Claim 5.

Accordingly, Applicant respectfully requests that the rejection of Claim 5 (and Claims 6-8 which depend therefrom) under 35 U.S.C. § 102(b) be withdrawn.

Consequently, in view of the present amendment and light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 1-12 is patentably distinguishing over the applied references. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of the application is therefore requested.

Respectfully submitted,

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